

REMARKS

The Applicants request reconsideration of the rejection.

Claims 1-18 are pending.

Submitted herewith is a certified copy of the corresponding Japanese patent application (JP 10-347235, filed December 7, 1998). An indication that this document has been safely received would be appreciated.

Claims 1-18 were rejected under 35 U.S.C. § 102(a) and/or (e) as being anticipated by Liu et al U.S. Patent No. 5,898,780 (Liu).

The present invention relates to a network relaying apparatus in which address information indicating correspondence between an I/O port and a network address of a network terminal connected to each of a plurality of I/O ports is stored. When receiving a packet from one of the I/O ports, the I/O port corresponding to the destination address of the received packet is normally recognized based on the address information thus stored, and the received packet is relayed to the I/O port thus recognized. Further, when receiving a packet from one of the I/O ports, a correspondence between the I/O port and the source network address is learned. When this latter correspondence has not been registered in the stored

address information, or when the correspondence differs from the stored address information, the system determines to update the address information by the newly-learned correspondence. To this end, user authentication information (e.g., a user identifier and password) is requested from the network terminal which has sent the packet.

Then, it is determined whether the user authentication information received in response to the request is correct. When the user authentication information is determined to be correct, the system registers/updates the correspondence thus learned in the stored address information.

Thus, when a network terminal provides a packet with erroneous or falsified network address information, the network relay apparatus can prevent the registration/updating of the correspondence learned from the received packet. Furthermore, the source of the falsified or erroneous information can be easily detected and tracked.

In contrast, the applied reference to Liu has the essential object of permitting access to the internet by a user via an internet service provider (ISP) different from the ISP to which the user is contracted. Liu does not disclose the claimed technique of relaying a packet. Further, according to Liu, in order to determined permission of the

user to access the internet, the authentication server of the home ISP with which the user has a contract executes the authentication by using login information of the user. This process does not relate to the user authentication of the claimed invention. Further, Liu does not teach determination of falsified or erroneous information, authentication directed to confirming the acceptability of apparently false or erroneous information, the registration/updating of new information based on a proper user authentication, or the detection and tracking of the source of a packet bearing falsified or erroneous information.

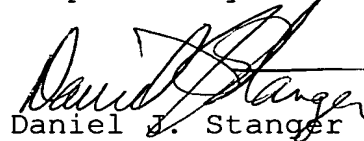
In particular, the Examiner appears to be misled at the outset by the use of Liu of the login information "username@userdomain", which Liu uses as the login information. In the rejection, however, the Examiner appears to indicate that "username@userdomain" corresponds to the claimed information indicating corresponding between I/O ports and a network address of a network terminal connected to each of the I/O ports. As is clear from the discussion above, "username@userdomain" corresponds better to the user authentication information of the claimed apparatus/method/program.

Thus, it is seen that Liu does not teach or fairly suggest the claimed means for storing information relating to a connecting state of the network terminal, the information indicating correspondence between each of the I/O ports and a network address of the network terminal; means for storing user authentication information for each of the network addresses; packet communicating means for transmitting and receiving packets through the I/O ports; packet relaying means for determining the destination of the packet received from each of the I/O ports based on the information held by the sorting means and instructing the packet communicating means to transmit the received packet; and user authenticating means for determining if the user authentication information specified against the network address is correct based on the user authentication information stored in the storing means, wherein the packet relaying means operates to learn a correspondence between the I/O port for receiving the received packet and the source network address based on the source network address information contained in the received packet, request the user authentication information if a change in content relaying to the connecting state is required, specify the user authentication information transmitted by the source network terminal, instruct the user authenticating means to

execute the use authentication, and change the content of the stored information if the user is authenticated to be correct, as claimed in claim 1. Independent claims 8 (method) and 18 (program) contain similar limitations.

In view of the foregoing amendments and remarks, the Applicants request reconsideration of the rejection and allowance of the claims.

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